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EXAMINER	
MAHMOUDZADEH, NIMA	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/826,060	REKIMOTO, JUNICHI	
	Examiner	Art Unit	
	NIMA MAHMOUDZADEH	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/06/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 02/13/2009 has been entered. Claims 1- 23 are still pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-13, 15-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salonidis et al. (US Patent No. 6,865,371) in view of Kiesler et al. (US Patent No. 2,292,387).

Regarding claim 1, (currently amended) Salonidis et al. teach a data communication system for enabling a plurality of communication apparatuses to perform data communication via a communication medium, the data communication system comprising:

timing information sharing section (Column 2, lines 40-65) configured to share timing information related to a user operation and release of user operation between devices performing mutual communication (Column 2, lines 66 - 67), in response to user operation and release of user operation performed at a same timing against

respective connection (Column 4, lines 6-8) designation section of apparatuses (Fig.1, 101 and 102) constituting respective counterparts for communication; and

searching section configured (Column 2, lines 54-59) to search over said communication medium and specify as a communication counterpart an apparatus sharing timing information (Column 2, lines 66-67) related to said user operation and said release of user operation; wherein

each of said communication apparatuses (Fig. 1,101 and 102) includes a user interface (Column 8, lines 17-23) configured to accept a user operation (Column 6, lines 3-6), and said user operation and release of user operation related to part of said user interfaces is allocated to a connection designation section configured to designate network connections (Column 8, lines 24-25);

Salonidis et al. fail to teach a data communication system whereby a data communication path between any two of the communication apparatuses is established when the timing of a user performing a manual operation on --one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatuses or on a peripheral device associated with said other of the two apparatuses, said communication path being established regardless of whether or not there is synchronization between said one of the two apparatuses, or a peripheral device associated with said one of the two apparatuses, and said other of the two apparatuses, or a peripheral device associated with said other of the two apparatuses. However, Kiesler et al. teach a data communication system whereby a data

communication path between (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) any two of the communication apparatuses is established when the timing of a user performing a manual operation on --one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatuses or on a peripheral device associated with said other of the two apparatuses (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between said one of the two apparatuses (As shown in page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with said one of the two apparatuses, and said other of the two apparatuses, or a peripheral device associated with said other of the two apparatuses.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 2, (original) Salonidis et al. teach the data communication system according to claim 1, wherein said searching (Column 2, lines 14-17) section collectively transmits connection request packets (Column 2, lines 20-22) including timings (column 2, lines 23-26) of said user operation and said release of user operation for each of said communication apparatuses (Column 2, lines 27-31); reads timing

information related to user operation and release of user operation from a connection request packet received from other apparatuses (Fig. 3); and compares said timing information related to user operation and release of user operation with its own timing information of user operation and release of user operation (Fig. 2); wherein

mutual identification (Column 3, lines 7-11) between apparatuses is performed upon matching carried out as a result of said comparison of timing information (Fig. 2).

Regarding claim 3, (original) Salonidis et al. teach the data communication system according to claim 2, wherein said connection request packet further comprises time interval (Column 3, lines 7-11) between user operation and release of user operation and network identification information of a transmitting counterpart (Column 1, lines 58-62).

Regarding claim 4, (original) Salonidis et al. teach the data communication system according to claim 2, wherein said connection request packet further comprises key information (Column 2, lines 62-64) to be used for establishing network connection.

Regarding claim 5, (currently amended) Salonidis et al. teach a data communication apparatus for performing data communication via a communication medium, comprising:

user interfaces configured to accept user operation (Column 8, lines 17-22);

connection designation section (Column 8, lines 31-39) configured to designate network connection for user operation and release of user operation allocated to part of said user interfaces (Column 8, lines 17-22);

timing information storage section (Column 4, lines 40-46) configured to store timing (Column 4, lines 40-46) information related to said user operation and release of user operation, in response (Fig. 1, 112) to said user operation and release of user operation (Fig. 1, 113) against said connection designation section; and

searching section configured to search over said communication medium (Column 2, lines 47-52) and specify as a communication counterpart an apparatus sharing timing information related to said user operation and said release of user operation (Column 2, lines 54-62);

Salonidis et al. fail to teach a data communication apparatus whereby a data communication path between the apparatus and the counterpart apparatus is established when the timing of a user performing a manual operation on --the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus, said communication path being established regardless of whether or not there is synchronization between the apparatus, or a peripheral device associated with the apparatus, and the counterpart apparatus, or a peripheral device associated with the counterpart apparatus. However, Kiesler et al. teach a data communication apparatus whereby a data communication path between the apparatus (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) and the counterpart apparatus is established when the timing of a user performing a manual operation on -- the apparatus or on a peripheral device associated with the apparatus corresponds to

the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the apparatus (As shown in page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the apparatus, and the counterpart apparatus, or a peripheral device associated with the counterpart apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 6, (original) Salonidis et al. teach the data communication apparatus according to claim 5, wherein said searching section comprises:

packet transmitter (Column 2, lines 20-22)configured to collectively transmit connection request packets including timings of said user operation (Fig. 1,114) and said release (Fig. 1, 115) of user operation in response to said release of user operation against said connection designation (Fig.1 , 198) section;

packet receptor (Column 2, lines 14-17 & Fig. 2, 102) configured to receive connection request packets (Fig. 1, 113) from another data communication apparatus within a time interval (Column 2, lines 23-26) from said release of user operation against said connection designation section (Column 2, lines, 27-31); and

communication counterpart identification (Column 2, lines, 27-31 and Fig.1 198) section configured to read timing information (Column 3, lines, 7-9) related to user operation and release of user operation from a connection request packet received (Fig.1, 113) from said other communication apparatus; compare said timing (Fig.2, 220) information related to user operation and release of user operation stored in said timing information storage (Column 4, lines, 40-46) section; and perform mutual identification (Column 3, lines 7-11) between apparatuses upon matching as a result of said comparison.

Regarding claim 7, (original) Salonidis et al. teach the data communication apparatus according to claim 6, wherein said connection request packets (Fig.1) include one's own network identification information and time interval between user operation and release of user operation (Column 1, lines 58-63).

Regarding claim 8, (original) Salonidis et al. teach the data communication apparatus according to claim 6, wherein said communication counterpart (Fig. 1,102) identification section (Column 1, 58-63) identifies whether or not a transmission source of a connection request packet constitutes a communication counterpart upon determining whether or not a difference of a time interval from releasing of user operation of said connection designation section of one's own device to a time of receiving a connection request packet is less than a limit of error (As noted, in case of lack of synchronization between two apparatuses, they are not able to communicate with each other. Column 3, lines 58-66); and determining whether or not a difference between a time interval from an operation of said connection designation section stored

in said timing information storage section (Column 4, lines 40-46) to said release of user operation and said time interval (Column 4, lines 40-46) included in said received connection request packet constitutes a limit of error (As noted, in case of lack of synchronization between two apparatuses, they are not able to communicate with each other. By synchronization communication link will be reinstated. Column 3, lines 58-66).

Regarding claim 9, (original) Salonidis et al. teach he data communication apparatus according to claim 5, wherein said user operation against said connection designation section is processed as a request for network connection (Fig.1, 114 and 115) if said user operation against said connection designation section differs from a usual interface operation (Column 4, lines 6-8).

Regarding claim 10, (original) Salonidis et al. teach the data communication apparatus according to claim 5, wherein said user operation against said connection designation section is processed as a usual interface operation (Column 4, line 6-8) if a time interval from said user operation against said connection designation section to the user releasing said apparatus is less than a limit value (Fig.2, 220), and is processed as a network connection request if said time interval exceeds said limit value (Fig.2, 220).

Regarding claim 11, (original) Salonidis et al. teach the data communication apparatus according to claim 5, further comprising collision detector (Listening mode is main factor in collision detector in a data communication apparatus. Column 2, lines 54-65) configured to detect a collision in response to arrival of two or more connection request packets (Column 2, lines 40-43) within a prescribed time from release of user operation against said connection designation section (Fig.1, 102).

Regarding claim 12, (original) Salonidis et al. teach the data communication apparatus according to claim 11, further comprising connection request retry (If the connection fails, the connection attempt is performed until the connection is successfully established. Column 7, lines 58-63) section configured to request retrial of operation of said connection designation section in response to detection of collision (Listening mode is main factor in collision detector in a data communication apparatus. Column 2, lines 54-65).

Regarding claim 13, (original) Salonidis et al. teach the data communication apparatus according to claim 12, further configured to store all network identification information (Column 4, lines 40-46) included in each connection request packet received at time of collision (Listening mode is main factor in collision detector in a data communication apparatus. Column 2, lines 54-65); and to accept only a connection request packet from a transmission source possessing stored network identification information at time of retrying said connection request (If the connection fails, the connection attempt is performed until the connection is successfully established. Column 7, lines 58-63).

Regarding claim 15, (original) Salonidis et al. teach the data communication apparatus according to claim 5,further comprising provider configured to provide feedback to the user in response to identification of a communication (Column 8, lines 16-22) counterpart by said communication counterpart identification section (Column 1, 58-63).

Regarding claim 16, (currently amended) Salonidis et al. teach a data communication method for performing data communication via a communication medium, comprising:

connection designation step (Column 2, lines 47-53) of designating network connection for user operation and release of user operation against a user interface of an apparatus (Column 8, lines 16-22);

timing information storing step (Column 4, lines 40-46) of storing timing information related to said user operation and release of user operation (Column 3, lines 12-14) of said connection designation step; and

searching step of searching (Column 2, lines 47-53) over said communication medium and specifying as a communication counterpart an apparatus sharing timing information (Column 1, lines 44-47) related to said user operation and said release of user operation;

Salonidis et al. fail to teach a data communication method whereby a data communication path between the apparatus and the counterpart apparatus is established when the timing of a user performing a manual operation on --the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of user performing a manual operation on --the counterpart apparatus or on a peripheral device associated with the counterpart apparatus, said communication path being established regardless of whether or not there is synchronization between the apparatus, or a peripheral device associated with the apparatus, and the counterpart apparatus, or a peripheral device associated with the counterpart apparatus. However,

Kiesler et al. teach a data communication method whereby a data communication path between the apparatus (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) and the counterpart apparatus is established when the timing of a user performing a manual operation on --the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of user performing a manual operation on --the counterpart apparatus or on a peripheral device associated with the counterpart apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the apparatus (As shown on page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the apparatus, and the counterpart apparatus, or a peripheral device associated with the counterpart apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 17, (currently amended) Salonidis et al. teach a method of establishing connection between information apparatuses, comprising:

first acquisition step (Fig.3, 301) of acquiring a first time difference comprising a difference between a first time (Fig.3, 311) on which a first physical operation is carried out on an operation section utilized for operation of a first information apparatus (Fig.3,

360) and a second time on which a second physical operation (Fig.3, 370) is carried out on said operation section;

second acquisition (Fig.3, 302) step of acquiring a second time difference comprising a difference between a third time corresponding to said first time and generated on a second information apparatus (Fig.3, 312), and a fourth time corresponding to said second time; and

connection establishing step (Fig.3, 313) of establishing connection (Fig.3, 321) between said first and said second information apparatuses based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Fig.3, 311) comprise a series of operations (Fig.3, 301 and 302) performed against said operation section;

Salonidis et al. fail to teach a method whereby a data communication path between the first information apparatus and the second information apparatus is established when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus, said communication path being established regardless of whether or not there is synchronization between the first information apparatus, or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus. However, Kiesler et al. teach a method whereby a data communication path

between the first information apparatus and the second information apparatus is established (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the first information apparatus (As shown ion page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 19, (currently amended) Salonidis et al. teach a method of establishing connection between information apparatuses, comprising:

first acquisition step of acquiring a first time on which a first physical operation is carried out (Fig.3, 320) on an operation section utilized for operation of a first information apparatus (Fig.3, 360);

second acquisition step of acquiring a second time (Fig.3, 312) on which a second physical (Fig.3, 370) operation is carried out on said operation section;

third acquisition step of acquiring a third time (Fig.3, 313) and a fourth time (Fig.3, 314) corresponding to said first time and said second time, and generated on a second information apparatus (Fig. 3, 370); and

connection establishing step of establishing connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 370) based on said first to fourth times; wherein

said first and said second physical (Fig.3, 311) operations comprise a series of operations performed against said operation section;

Salonidis et al. fail to teach a method whereby a data communication path between the first established when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus, said communication path being established regardless of whether or not there is synchronization between the first information apparatus, or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus. However, Kiesler et al. teach a method whereby a data communication path between the first established (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) when the

timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the first information apparatus (As shown ion page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 20, (currently amended) Salonidis et al. teach a connection establishing apparatus for establishing connection between information apparatuses, comprising:

operation section configured to enable a user to perform a physical operation (Column 8, lines 16-22);

first acquisition section configured to acquire a first time difference comprising a difference between a first time on which a first physical operation is carried out (Column 8, lines 16-22) on said operation section utilized for operation of a first information

apparatus (Fig.3, 360) and a second time on which a second physical operation (Column 8, lines 16-22) is carried out on said operation section;

second acquisition section configured to acquire a second time difference (Fig.3, 312) comprising a difference between a third time corresponding to said first time and generated on a second information apparatus (Fig.3, 370), and a fourth time (Fig.3, 313) corresponding to said second time; and

connection establishing section configured to establish connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 360 and 370)based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Column 8, lines 16-22)comprise a series of operations performed against said operation section;

Salonidis et al. fail to teach an apparatus whereby a data communication path between the first established when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus, said communication path being established regardless of whether or not there is synchronization between the first information apparatus, or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus. However, Kiesler et al. teach an apparatus whereby a data communication path between the first established (In page one, column 1, lines 25-35,

data being transmitted is the navigation commands transmitted to the receiver antenna) when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the first information apparatus (As shown ion page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 21, (currently amended) Salonidis et al. teach a connection establishing system for establishing connection between information apparatuses, comprising:

first acquisition step of acquiring a first time difference comprising a difference between a first time on which a first physical operation is carried out (Column 8, lines 16-22) on an operation section utilized for operation of a first information apparatus

(Fig.3, 360) and a second time on which a second physical operation (Column 8, lines 16-22) is carried out on said operation section;

second acquisition step of acquiring a second time difference (Fig.3, 312) comprising a difference between a third time corresponding to said first time and generated on a second information apparatus (Fig.3, 370), and a fourth time (Fig.3, 313) corresponding to said second time; and

connection establishing step of establishing connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 360 & 370) based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Column 8, lines 16-22) comprise a series of operations performed against said operation section;

Salonidis et al. fail to teach a system whereby a data communication path between the first information apparatus and the second information apparatus is established when the timing of a user performing a manual operation on the first information apparatus or on peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus, said communication path being established regardless of whether or not there is synchronization between the first information apparatus, or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information

apparatus. However, Kiesler et al. teach a system whereby a data communication path between (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) the first information apparatus and the second information apparatus is established when the timing of a user performing a manual operation on the first information apparatus or on peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the first information apparatus (As shown ion page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the first information apparatus, and the second information apparatus, or a peripheral device associated with the second information apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 22, (currently amended) Salonidis et al. teach a computer program written in computer-readable form for making a computer execute a process of establishing connections between information apparatuses, the process comprising:

first acquisition step of acquiring a first time difference comprising a difference between a first time on which a first physical operation is carried out (Column 8, lines 16-22) on an operation section installed on an apparatus and a second time on which a second physical operation (Column 8, lines 16-22) is carried out on said operation section;

a second acquisition step of acquiring a second time difference (Fig.3, 312) comprising a difference between a third time (Fig.3, 312) corresponding to said first time and generated on an information apparatus constituting a connection counterpart (Fig.3, 302), and a fourth time corresponding (fig.3, 313) to said second time; and

connection establishing step of establishing connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 360 and 370) based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Column 8, lines 16-22) comprise a series of operations carried out against said operation sections.

Salonidis et al. fail to teach a computer program whereby a data communication path between the timing a user performing a manual operation on the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus, said communication path being established regardless of whether or not there is synchronization between the apparatus, or a peripheral device associated with the apparatus, and the counterpart apparatus, or a

peripheral device associated with the counterpart apparatus. However, Kiesler et al. a computer program whereby a data communication path between the timing a user performing a manual operation on the apparatus (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between the apparatus (As shown ion page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with the apparatus, and the counterpart apparatus, or a peripheral device associated with the counterpart apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

Regarding claim 23, (currently amended) Salonidis et al. teach a data communication system for enabling a plurality of communication apparatuses to perform data communication via a communication medium, the data communication system comprising:

timing information sharing (Column2, lines 40-65) means for sharing timing information related to a user operation and release of user operation between devices performing mutual communication (Column 2, lines 66-67), in response to user operation and release -of user operation performed at a same timing against respective connection (Column 4, lines 6-8) designation section of apparatuses (Fig.1, 101 and 102) constituting respective counterparts for communication; and

searching (Column 2,lines 54-59) means for searching over said communication medium and specify as a communication counterpart an apparatus sharing timing information (Column 2, lines 66-67) related to said user operation and said release of user operation; wherein

each of said communication apparatuses (Fig.1, 101 and 102) includes a user interface (Column 8, lines 17-23) for accepting a user operation (column 6, lines 3-6), and said user operation and release of user operation related to part of said user interfaces is allocated to a connection designation means for designating network connections (Column 8, lines 24-25).

Salonidis et al. fail to teach a system whereby a data communication path between any two of the communication apparatuses is established when the timing of a user performing a manual operation on one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatus or on a peripheral device associated with said other of the two apparatuses, said communication path

being established regardless of whether or not there is synchronization between said one of the two apparatuses, or a peripheral device associated with said one of the two apparatuses, and said other of the two apparatuses, or a peripheral device associated with said other of the two apparatuses. However, Kiesler et al. teach a system whereby a data communication path between any two of the communication apparatuses (In page one, column 1, lines 25-35, data being transmitted is the navigation commands transmitted to the receiver antenna) is established when the timing of a user performing a manual operation on one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatus or on a peripheral device associated with said other of the two apparatuses. (See page 3, column 2, lines 16-27), said communication path being established regardless of whether or not there is synchronization between said one of the two apparatuses (As shown ion page 1 column 1, lines 37-49, in case the devices are out of synchronization, a correction synchronous impulse is sent to resolve the problem), or a peripheral device associated with said one of the two apparatuses, and said other of the two apparatuses, or a peripheral device associated with said other of the two apparatuses.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Kiesler et al. in order to be able to initiate a synchronized communication.

4. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salonidis et al. (US Patent No. 6,865,371) in view of Kiesler et al. (US Patent No. 2,292,387) and further in view of Gehrmann (http://grouper.ieee.org).

Regarding claim 14, (original) Salonidis et al. and Kiesler et al. teach the data communication apparatus according to claim 6,except generator configured to generate a public key under a public key encryption method; wherein said packet transmitter transmits a connection request packet including said public key. However, Gehrmann teaches generating a public key under a public key encryption which the packets transmitted includes said public key to encryption (Page 34, 5.2.3.2 and page 24 section 5.1.2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify data communication between apparatuses of Salonidis et al. and Kiesler et al. to include encryption features taught by Gehrmann in order to have a secure data communication link.

Regarding claim 18, (original) Salonidis et al. and Kiesler et al. teach the method according to claim 17, except at least one of outputting step of outputting information of a first type for generating an encryption key in receptible form for said second apparatus, and a third acquisition step of acquiring information of a second type for generating an encryption key outputted by said second information apparatus; and communication step of performing communication utilizing encryption process based on said encryption key, after establishment of said connection . However, Gehrmann teaches at least one of outputting step of outputting information of a first type for

generating an encryption key in receptible form for said second apparatus (Page 34, 5.2.3.2 and page 24 section 5.1.2). and a third acquisition step of acquiring information of a second type for generating an encryption key outputted (Page 34, 5.2.3.2 and page 24 section 5.1.2) by said second information apparatus; and communication step of performing communication utilizing encryption process based on said encryption key, after establishment of said connection (Page 34, 5.2.3.2 and page 24 section 5.1.2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify data communication between apparatuses of Salonidis et al. and Kiesler et al. to include encryption features taught by Gehrmann in order to have a secure data communication link.

5. Claims 1-13, 15-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salonidis et al. (US Patent No. 6,865,371) in view of Erola et al. (US Patent Publication No. 2004/0179545).

Regarding claim 1, (currently amended) Salonidis et al. teach a data communication system for enabling a plurality of communication apparatuses to perform data communication via a communication medium, the data communication system comprising:

timing information sharing section (Column 2, lines 40-65) configured to share timing information related to a user operation and release of user operation between devices performing mutual communication (Column 2, lines 66 - 67), in response to user operation and release of user operation performed at a same timing against

respective connection (Column 4, lines 6-8) designation section of apparatuses (Fig.1, 101 and 102) constituting respective counterparts for communication; and

searching section configured (Column 2, lines 54-59) to search over said communication medium and specify as a communication counterpart an apparatus sharing timing information (Column 2, lines 66-67) related to said user operation and said release of user operation; wherein

each of said communication apparatuses (Fig. 1,101 and 102) includes a user interface (Column 8, lines 17-23) configured to accept a user operation (Column 6, lines 3-6), and said user operation and release of user operation related to part of said user interfaces is allocated to a connection designation section configured to designate network connections (Column 8, lines 24-25);

Salonidis et al. fail to teach a data communication system whereby a data communication path between any two of the communication apparatuses is established when the timing of a user performing a manual operation on --one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatuses or on a peripheral device associated with said other of the two apparatuses. However, Erola et al. teach a data communication system whereby a data communication path between (Abstract discloses data communication between two devices) any two of the communication apparatuses is established when the timing of a user performing a manual operation on --one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a

user performing a manual operation on the other of the two apparatuses or on a peripheral device associated with said other of the two apparatuses (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 2, (original) Salonidis et al. teach the data communication system according to claim 1, wherein said searching (Column 2, lines 14-17) section collectively transmits connection request packets (Column 2, lines 20-22) including timings (column 2, lines 23-26) of said user operation and said release of user operation for each of said communication apparatuses (Column 2, lines 27-31); reads timing information related to user operation and release of user operation from a connection request packet received from other apparatuses (Fig. 3); and compares said timing information related to user operation and release of user operation with its own timing information of user operation and release of user operation (Fig. 2); wherein

mutual identification (Column 3, lines 7-11) between apparatuses is performed upon matching carried out as a result of said comparison of timing information (Fig. 2).

Regarding claim 3, (original) Salonidis et al. teach the data communication system according to claim 2, wherein said connection request packet further comprises time interval (Column 3, lines 7-11) between user operation and release of user

operation and network identification information of a transmitting counterpart (Column 1, lines 58-62).

Regarding claim 4, (original) Salonidis et al. teach the data communication system according to claim 2, wherein said connection request packet further comprises key information (Column 2, lines 62-64) to be used for establishing network connection.

Regarding claim 5, (currently amended) Salonidis et al. teach a data communication apparatus for performing data communication via a communication medium, comprising:

user interfaces configured to accept user operation (Column 8, lines 17-22);

connection designation section (Column 8, lines 31-39) configured to designate network connection for user operation and release of user operation allocated to part of said user interfaces (Column 8, lines 17-22);

timing information storage section (Column 4, lines 40-46) configured to store timing (Column 4, lines 40-46) information related to said user operation and release of user operation, in response (Fig. 1, 112) to said user operation and release of user operation (Fig. 1, 113) against said connection designation section; and

searching section configured to search over said communication medium (Column 2, lines 47-52) and specify as a communication counterpart an apparatus sharing timing information related to said user operation and said release of user operation (Column 2, lines 54-62);

Salonidis et al. fail to teach a data communication apparatus whereby a data communication path between the apparatus and the counterpart apparatus is

established when the timing of a user performing a manual operation on --the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus. However, Erola et al. teach a data communication apparatus whereby a data communication path between the apparatus (Abstract discloses data communication between two device) and the counterpart apparatus is established when the timing of a user performing a manual operation on -- the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 6, (original) Salonidis et al. teach the data communication apparatus according to claim 5, wherein said searching section comprises:

packet transmitter (Column 2, lines 20-22)configured to collectively transmit connection request packets including timings of said user operation (Fig. 1,114) and said release (Fig. 1, 115) of user operation in response to said release of user operation against said connection designation (Fig.1 , 198) section;

packet receptor (Column 2, lines 14-17 & Fig. 2, 102) configured to receive connection request packets (Fig. 1, 113) from another data communication apparatus within a time interval (Column 2, lines 23-26) from said release of user operation against said connection designation section (Column 2, lines, 27-31); and

communication counterpart identification (Column 2, lines, 27-31 and Fig.1 198) section configured to read timing information (Column 3, lines, 7-9) related to user operation and release of user operation from a connection request packet received (Fig.1, 113) from said other communication apparatus; compare said timing (Fig.2, 220) information related to user operation and release of user operation stored in said timing information storage (Column 4, lines, 40-46) section; and perform mutual identification (Column 3, lines 7-11) between apparatuses upon matching as a result of said comparison.

Regarding claim 7, (original) Salonidis et al. teach the data communication apparatus according to claim 6, wherein said connection request packets (Fig.1) include one's own network identification information and time interval between user operation and release of user operation (Column 1, lines 58-63).

Regarding claim 8, (original) Salonidis et al. teach the data communication apparatus according to claim 6, wherein said communication counterpart (Fig. 1,102) identification section (Column 1, 58-63) identifies whether or not a transmission source of a connection request packet constitutes a communication counterpart upon determining whether or not a difference of a time interval from releasing of user operation of said connection designation section of one's own device to a time of

receiving a connection request packet is less than a limit of error (As noted, in case of lack of synchronization between two apparatuses, they are not able to communicate with each other. Column 3, lines 58-66); and determining whether or not a difference between a time interval from an operation of said connection designation section stored in said timing information storage section (Column 4, lines 40-46) to said release of user operation and said time interval (Column 4, lines 40-46) included in said received connection request packet constitutes a limit of error (As noted, in case of lack of synchronization between two apparatuses, they are not able to communicate with each other. By synchronization communication link will be reinstated. Column 3, lines 58-66).

Regarding claim 9, (original) Salonidis et al. teach he data communication apparatus according to claim 5, wherein said user operation against said connection designation section is processed as a request for network connection (Fig.1, 114 and 115) if said user operation against said connection designation section differs from a usual interface operation (Column 4, lines 6-8).

Regarding claim 10, (original) Salonidis et al. teach the data communication apparatus according to claim 5, wherein said user operation against said connection designation section is processed as a usual interface operation (Column 4, line 6-8) if a time interval from said user operation against said connection designation section to the user releasing said apparatus is less than a limit value (Fig.2, 220), and is processed as a network connection request if said time interval exceeds said limit value (Fig.2, 220).

Regarding claim 11, (original) Salonidis et al. teach the data communication apparatus according to claim 5, further comprising collision detector (Listening mode is

main factor in collision detector in a data communication apparatus. Column 2, lines 54-65) configured to detect a collision in response to arrival of two or more connection request packets (Column 2, lines 40-43) within a prescribed time from release of user operation against said connection designation section (Fig.1, 102).

Regarding claim 12, (original) Salonidis et al. teach the data communication apparatus according to claim 11, further comprising connection request retry (If the connection fails, the connection attempt is performed until the connection is successfully established. Column 7, lines 58-63) section configured to request retrial of operation of said connection designation section in response to detection of collision (Listening mode is main factor in collision detector in a data communication apparatus. Column 2, lines 54-65).

Regarding claim 13, (original) Salonidis et al. teach the data communication apparatus according to claim 12, further configured to store all network identification information (Column 4, lines 40-46) included in each connection request packet received at time of collision (Listening mode is main factor in collision detector in a data communication apparatus. Column 2, lines 54-65); and to accept only a connection request packet from a transmission source possessing stored network identification information at time of retrying said connection request (If the connection fails, the connection attempt is performed until the connection is successfully established. Column 7, lines 58-63).

Regarding claim 15, (original) Salonidis et al. teach the data communication apparatus according to claim 5,further comprising provider configured to provide

feedback to the user in response to identification of a communication (Column 8, lines 16-22) counterpart by said communication counterpart identification section (Column 1, 58-63).

Regarding claim 16, (currently amended) Salonidis et al. teach a data communication method for performing data communication via a communication medium, comprising:

connection designation step (Column 2, lines 47-53) of designating network connection for user operation and release of user operation against a user interface of an apparatus (Column 8, lines 16-22);

timing information storing step (Column 4, lines 40-46) of storing timing information related to said user operation and release of user operation (Column 3, lines 12-14) of said connection designation step; and

searching step of searching (Column 2, lines 47-53) over said communication medium and specifying as a communication counterpart an apparatus sharing timing information (Column 1, lines 44-47) related to said user operation and said release of user operation;

Salonidis et al. fail to teach a data communication method whereby a data communication path between the apparatus and the counterpart apparatus is established when the timing of a user performing a manual operation on --the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of user performing a manual operation on --the counterpart apparatus or on a peripheral device associated with the counterpart apparatus. However, Erola et al. teach a data

communication method whereby a data communication path between the apparatus (Abstract discloses data communication between two device) and the counterpart apparatus is established when the timing of a user performing a manual operation on --the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of user performing a manual operation on --the counterpart apparatus or on a peripheral device associated with the counterpart apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 17, (currently amended) Salonidis et al. teach a method of establishing connection between information apparatuses, comprising:

first acquisition step (Fig.3, 301) of acquiring a first time difference comprising a difference between a first time (Fig.3, 311) on which a first physical operation is carried out on an operation section utilized for operation of a first information apparatus (Fig.3, 360) and a second time on which a second physical operation (Fig.3, 370) is carried out on said operation section;

second acquisition (Fig.3, 302) step of acquiring a second time difference comprising a difference between a third time corresponding to said first time and generated on a second information apparatus (Fig.3, 312), and a fourth time corresponding to said second time; and

connection establishing step (Fig.3, 313) of establishing connection (Fig.3, 321) between said first and said second information apparatuses based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Fig.3, 311) comprise a series of operations (Fig.3, 301 and 302) performed against said operation section;

Salonidis et al. fail to teach a method whereby a data communication path between the first information apparatus and the second information apparatus is established when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus. However, Erola et al. teach a method whereby a data communication path between the first information apparatus and the second information apparatus is established (Abstract discloses data communication between two device) when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include

simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 19, (currently amended) Salonidis et al. teach a method of establishing connection between information apparatuses, comprising:

first acquisition step of acquiring a first time on which a first physical operation is carried out (Fig.3, 320) on an operation section utilized for operation of a first information apparatus (Fig.3, 360);

second acquisition step of acquiring a second time (Fig.3, 312) on which a second physical (Fig.3, 370) operation is carried out on said operation section;

third acquisition step of acquiring a third time (Fig.3, 313) and a fourth time (Fig.3, 314) corresponding to said first time and said second time, and generated on a second information apparatus (Fig. 3, 370); and

connection establishing step of establishing connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 370) based on said first to fourth times; wherein

said first and said second physical (Fig.3, 311) operations comprise a series of operations performed against said operation section;

Salonidis et al. fail to teach a method whereby a data communication path between the first established when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of user performing a manual operation on the second information apparatus or on a peripheral device associated with the

second information apparatus. However, Erola et al. teach a method whereby a data communication path between the first established (Abstract discloses data communication between two device) when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 20, (currently amended) Salonidis et al. teach a connection establishing apparatus for establishing connection between information apparatuses, comprising:

operation section configured to enable a user to perform a physical operation (Column 8, lines 16-22);

first acquisition section configured to acquire a first time difference comprising a difference between a first time on which a first physical operation is carried out (Column 8, lines 16-22) on said operation section utilized for operation of a first information apparatus (Fig.3, 360) and a second time on which a second physical operation (Column 8, lines 16-22) is carried out on said operation section;

second acquisition section configured to acquire a second time difference (Fig.3, 312) comprising a difference between a third time corresponding to said first time and generated on a second information apparatus (Fig.3, 370), and a fourth time (Fig.3, 313) corresponding to said second time; and

connection establishing section configured to establish connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 360 and 370)based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Column 8, lines 16-22)comprise a series of operations performed against said operation section;

Salonidis et al. fail to teach an apparatus whereby a data communication path between the first established when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus. However, Erola et al. teach an apparatus whereby a data communication path between the first established (Abstract discloses data communication between two device) when the timing of a user performing a manual operation on the first information apparatus or on a peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 21, (currently amended) Salonidis et al. teach a connection establishing system for establishing connection between information apparatuses, comprising:

first acquisition step of acquiring a first time difference comprising a difference between a first time on which a first physical operation is carried out (Column 8, lines 16-22) on an operation section utilized for operation of a first information apparatus (Fig.3, 360) and a second time on which a second physical operation (Column 8, lines 16-22) is carried out on said operation section;

second acquisition step of acquiring a second time difference (Fig.3, 312) comprising a difference between a third time corresponding to said first time and generated on a second information apparatus (Fig.3, 370), and a fourth time (Fig.3, 313) corresponding to said second time; and

connection establishing step of establishing connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 360 & 370) based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Column 8, lines 16-22) comprise a series of operations performed against said operation section;

Salonidis et al. fail to teach a system whereby a data communication path between the first information apparatus and the second information apparatus is established when the timing of a user performing a manual operation on the first information apparatus or on peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus. However, Erola et al. teach a system whereby a data communication path between (Abstract discloses data communication between two device) the first information apparatus and the second information apparatus is established when the timing of a user performing a manual operation on the first information apparatus or on peripheral device associated with the first information apparatus corresponds to the timing of a user performing a manual operation on the second information apparatus or on a peripheral device associated with the second information apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 22, (currently amended) Salonidis et al. teach a computer program written in computer-readable form for making a computer execute a process of establishing connections between information apparatuses, the process comprising:

first acquisition step of acquiring a first time difference comprising a difference between a first time on which a first physical operation is carried out (Column 8, lines 16-22) on an operation section installed on an apparatus and a second time on which a second physical operation (Column 8, lines 16-22) is carried out on said operation section;

a second acquisition step of acquiring a second time difference (Fig.3, 312) comprising a difference between a third time (Fig.3, 312) corresponding to said first time and generated on an information apparatus constituting a connection counterpart (Fig.3, 302), and a fourth time corresponding (fig.3, 313) to said second time; and

connection establishing step of establishing connection (Fig.3, 321) between said first and said second information apparatuses (Fig.3, 360 and 370) based on said first and said second time differences (Fig.3, 311); wherein

said first and said second physical operations (Column 8, lines 16-22) comprise a series of operations carried out against said operation sections.

Salonidis et al. fail to teach a computer program whereby a data communication path between the timing a user performing a manual operation on the apparatus or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus. However, Erola et al. a computer program whereby a data communication path between the timing a user performing a manual operation on the apparatus (Abstract discloses data communication between two

device) or on a peripheral device associated with the apparatus corresponds to the timing of a user performing a manual operation on the counterpart apparatus or on a peripheral device associated with the counterpart apparatus (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

Regarding claim 23, (currently amended) Salonidis et al. teach a data communication system for enabling a plurality of communication apparatuses to perform data communication via a communication medium, the data communication system comprising:

timing information sharing (Column2, lines 40-65) means for sharing timing information related to a user operation and release of user operation between devices performing mutual communication (Column 2, lines 66-67), in response to user operation and release -of user operation performed at a same timing against respective connection (Column 4, lines 6-8) designation section of apparatuses (Fig.1, 101 and 102) constituting respective counterparts for communication; and

searching (Column 2,lines 54-59) means for searching over said communication medium and specify as a communication counterpart an apparatus sharing timing

information (Column 2, lines 66-67) related to said user operation and said release of user operation; wherein

each of said communication apparatuses (Fig.1, 101 and 102) includes a user interface (Column 8, lines 17-23) for accepting a user operation (column 6, lines 3-6), and said user operation and release of user operation related to part of said user interfaces is allocated to a connection designation means for designating network connections (Column 8, lines 24-25).

Salonidis et al. fail to teach a system whereby a data communication path between any two of the communication apparatuses is established when the timing of a user performing a manual operation on one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatus or on a peripheral device associated with said other of the two apparatuses. However, Erola et al. teach a system whereby a data communication path between any two of the communication apparatuses (Abstract discloses data communication between two device) is established when the timing of a user performing a manual operation on one of the two apparatuses or on a peripheral device associated with said one of the two apparatuses corresponds to the timing of a user performing a manual operation on the other of the two apparatus or on a peripheral device associated with said other of the two apparatuses. (Paragraph [0017] discloses revealing hugging state by engaging manual procedure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Salonidis et al. to include simultaneously engagement of user physical interface disclosed by Erola et al. in order to be able to initiate a synchronized communication.

6. Claims 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salonidis et al. (US Patent No. 6,865,371) in view of Erola et al. (US Patent Publication No. 2004/0179545) and further in view of Gehrmann (http://grouper.ieee.org).

Regarding claim 14, (original) Salonidis et al. and Erola et al. teach the data communication apparatus according to claim 6,except generator configured to generate a public key under a public key encryption method; wherein said packet transmitter transmits a connection request packet including said public key. However, Gehrmann teaches generating a public key under a public key encryption which the packets transmitted includes said public key to encryption (Page 34, 5.2.3.2 and page 24 section 5.1.2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify data communication between apparatuses of Salonidis et al. and Erola et al. to include encryption features taught by Gehrmann in order to have a secure data communication link.

Regarding claim 18, (original) Salonidis et al. and Erola et al. teach the method according to claim 17, except at least one of outputting step of outputting information of

a first type for generating an encryption key in receptible form for said second apparatus, and a third acquisition step of acquiring information of a second type for generating an encryption key outputted by said second information apparatus; and communication step of performing communication utilizing encryption process based on said encryption key, after establishment of said connection . However, Gehrmann teaches at least one of outputting step of outputting information of a first type for generating an encryption key in receptible form for said second apparatus (Page 34, 5.2.3.2 and page 24 section 5.1.2). and a third acquisition step of acquiring information of a second type for generating an encryption key outputted (Page 34, 5.2.3.2 and page 24 section 5.1.2) by said second information apparatus; and communication step of performing communication utilizing encryption process based on said encryption key, after establishment of said connection (Page 34, 5.2.3.2 and page 24 section 5.1.2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify data communication between apparatuses of Salonidis et al. and Erola et al. to include encryption features taught by Gehrmann in order to have a secure data communication link.

Response to Arguments

7. Applicant's arguments filed 02/13/2009 have been fully considered but they are not persuasive. On page 16 of the Applicant's response, the Applicant argued that the references of the record fail to teach " The claim further recites that "said

communication path [is] established regardless of whether or not there is synchronization between said one of the two apparatuses, or a peripheral device associated with said one of the two apparatuses, and said other of the two apparatuses, or a peripheral device associated with said other of the two apparatuses" of claims 1, 5, 16, 17 and 19-23. The Examiner respectfully disagrees. Kiesler et al., page 1, column 1 discloses the situation when the units are out of synchronization and by utilizing a synchronous impulse the issue can be fixed.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIMA MAHMOUDZADEH whose telephone number is (571)270-3527. The examiner can normally be reached on Monday - Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NIMA MAHMOUDZADEH/
Examiner, Art Unit 2419

/Gregory B Sefcheck/
Primary Examiner, Art Unit 2419
5-25-2009